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FRONT COVER

Apples of Nova Scotia, Canada

An apple grown in the Annapolis Valley, Kentville, Nova Scotia, is sampled by a Canadian girl in Arcadian costume. (Photo by courtesy of the Canadian National Film Board.)

BACK COVER

Chart Showing United States Agricultural Trade With Canada, Value 1936–48

Although the agricultural trade between the United States and Canada varies somewhat from year to year, its average volume, as shown by these charts, is substantial.

NEWS NOTES

European Division Officials Change Places

J. H. Richter, Head of OFAR's European Division, has left for Paris where he will attend, as observer for Ambassador Harriman's ECA Mission, sessions of a Working Party on Food Consumption Levels and of a Committee on Imports and Exports, both in the Paris Organization of the Marshall Plan Countries.

Lois Bacon has returned from a similar assignment in Paris and is in charge of OFAR's European Division during Dr. Richter's absence. Miss Bacon also visited Portugal, Spain, Italy, England, and Germany.

RMA Specialist Makes Cotton Market Survey of Europe

Francis H. Whitaker, RMA cotton specialist, left Washington late in June to make a 4-month survey which continues his study begun in the fall of 1948 of long-term markets in Europe for United States cotton. Starting in England, he will visit the Scandanavian countries, France, western Germany, the Netherlands and Belgium, Switzerland, Italy, Spain, and Portugal.

Before making his European trip, Mr. Whitaker discussed foreign trade problems with members of the cotton industry in Tennessee, Mississippi, Arkansas, and Louisiana.

Mr. Whitaker plans to return to the United States the last of October.

African Tobacco Situation Studied by Mr. Van Dyne

George W. Van Dyne, International Commodities Branch, OFAR, is making an extended study of trends in production, consumption, and international trade in tobacco and tobacco products in Africa. His work will carry him into the Union of South Africa, Northern and Southern Rhodesia, Nyasaland, Mozambique, Tanganyika, Kenya, Uganda, and Egypt. This itinerary will keep him in Africa until the middle of November, when he will return to the United States by way of the United Kingdom.

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World-Wide Gap Between Science and Practice

First-hand observations on how President Truman's Point Four program can help meet a basic need.

by **NATHAN KOENIG**

The technical and scientific know-how that established the greatness of American production is being shared increasingly with the rest of the world. People in other lands, especially those in underdeveloped areas, are to get the benefit of our knowledge and skills so that they may make more secure their own foundations for peace and plenty.

President Truman first unfolded this new course of action in his inaugural address as a major addition to what we already have been doing to help world recovery and bring freedom to all mankind. Since then, many nations have expressed their desire to pool their technological resources in this undertaking and to join with the United States in a common fight against hunger, poverty, disease, and ignorance. The United Nations and its specialized agencies, such as the Food and Agriculture Organization, along with our own government and the governments of other countries, are already deeply engaged in developing the detailed plans for this participation.

Despite increasing mechanization, much of the world's food is still produced with simple hand tools.

Since the beginning of the war the United States has been sharing its material resources, such as food and equipment, with much of the world. The result was victory over the aggressors. Then started the gigantic task of reconstruction and this called for more help. A year ago we added to this assistance through the European Recovery Program. We are now providing dollars in addition to food and other essentials. The result of all this is seen in the recovery taking place in the cooperating countries. New hope has been brought to hundreds of millions of people throughout the world.

But, obviously, there is a limit to the dollars and other material resources that the United States can keep pumping out for the assistance of others. Therefore, from a longer-time standpoint, the emphasis will be on providing the less fortunate with the *basis* for greater self-help so that through their own efforts these people will be able to have more food and other necessities, as well as more mechanical power to lighten their burdens. They will be supplied with the information, technical assistance, and other related aids needed to develop their own agricultural and industrial possibilities and improve their standards of living. This is the substance of the "bold new program" outlined by President Truman. High lighting its significance is the fact that half the people of the world live in near misery under more or less primitive and stagnated conditions. They do not have enough to eat and are easy victims of disease. These people could be helped materially by the application of science and skill to their fundamental problems.

From our own standpoint, scientific knowledge and

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technical skill are valuables that we can give away and be none the poorer for it. In fact, the gift should come back manyfold through the prosperity that the practical use of such know-how can bring to people abroad. It holds possibilities of broadening our world trade opportunities, for experience shows there can be no real trade with people who have little or nothing to offer from their own production.

The problem then is to see that the underdeveloped areas have the ways and means by which their production can be increased. This means closing the gap between science and practice. The starting point is food since in most of these areas entire populations are underfed despite the constant struggle of their farmers to produce.

First to be tackled are the basic obstacles that now keep these people from getting enough to eat. What some of these obstacles are and how they have long limited vast segments of the world to a mere existence, I had an opportunity to observe first-hand in the weeks I spent in a large part of Europe and Asia during each of the past 3 years while studying postwar agricultural conditions in the different foreign countries. Wherever I went I found agricultural leaders and government officials hungry for information about how things are done in the United States.

I soon discovered that this keen interest was not accidental. Many of these countries had been cut off from the rest of the world during most of the past decade as the result of war. The food crisis experienced by them since the war began made them especially receptive to new ideas in farming. The significant fact is that these people are not only anxious to catch up but are also eager to forge ahead to a brighter and more secure future. This provides the basis for effective international cooperation in promoting greater self-help among nations. For, as Mr. Willard Thorp, the Assistant Secretary of State for Economic Affairs, recently said: "Many a country which thinks itself poor in resources may find that by taking stock of what it has it will discover capacities now unknown. Every country needs not only resources but resourcefulness, and in many an instance it is the resourcefulness of a people that creates a new resource."

Healthy people are more productive. The health phase of technical assistance is highly important.

Take the case of Asia where the need for an improved agriculture is perhaps greater than in any other part of the world. Here I saw the tragic results of centuries of land exploitation and neglect. The failure to adopt conservation practices and to maintain soil fertility has, through the long span of years, impoverished wide areas so that food production could not keep pace with the growth of population. In fact, the farming methods now employed are those that for the most part have been handed down from father to son, generation after generation, frequently under conditions of oppressive land tenure and taxation and government disinterest in the problems of the land and the farmer. Custom and tradition long ago submerged the resourcefulness that now needs to be brought out and put to constructive work in applying modern science and techniques to the problems of land and people.

Mother Nature has her own way of revealing where resourcefulness has lapsed into dormancy. Recurring floods, droughts, and dust storms serve as constant reminders of this fact and bare the truth about a country's economic security. I saw these telltale signs spread out over such countries as Greece, Korea, and China as counterparts to unmatched poverty. Korea, for instance, each year suffers disastrous local floods. Flying over the country I could see in the valleys the ribbonlike scars left by the wild waters. It is a mountainous country and the floods come with marked certainty, doing extensive damage to land, property, and people. After the floods are over, it is the practice of the Korean farmer to go to the areas along the stream or river where washed away land has been deposited, gather the soil up in baskets, and carry it

back for replacement and recultivation on his farm.

In all these countries the forests have long been exploited. For hundreds of miles within their borders I saw hills and mountain slopes either denuded or sparsely covered and in an alarmingly advanced stage of erosion. It was evident that these countries did not have enough growing wood available to meet even the fuel needs of their people. I was told that to supply the barest requirements, heavy cutting back into young growing trees was necessary. This means more and more erosion, flood damage, and silting of irrigation works.

All of Asia is subject to recurring famine and pestilence, as well as floods. In China, for example, I discovered that a surplus of food in one agricultural area could do little to alleviate hunger in another. I saw in Shanghai, as well as in other coastal cities, stocks of food that had been brought in by boat stacked up for sale in public markets while actual starvation prevailed in the interior of the country. When I inquired of Government officials why this situation existed, I was told that it was due primarily to China's historic lack of adequate transportation. I was informed that it was easier for hungry people to move to the food than to move food to the people. This accounts for the great migrations that have taken place in China as a matter of course for so many centuries whenever famine struck.

In many countries of the Far East, where more than 75 percent of the farms are about 2½ acres in size, the farmer ekes out a living from the soil with virtually nothing more than bare hands and crude implements. The owner of a draft animal, whether it be a cow, horse, or water buffalo, is considered fortunate indeed. But disease has no respect for either man or beast and, due to the sorrowful lack of medical services, plagues are permitted to run their course and take their toll.

Thanks to the Food and Agriculture Organization (FAO), at least a start is being made in dealing with the most serious of animal diseases in the Orient. Perhaps the most costly animal disease in the world is rinderpest, killing at least 2 million animals a year with staggering loss of meat, milk, and draft power. Chinese technicians were taught how to make an effective vaccine that is now in the mass-production stage and it is being used successfully by Government veterinarians. FAO estimates that some 300,000 animals in China were safeguarded from rinderpest in the short period that the vaccine has been used and that at least 100,000 animals were saved from death.

This saving is even more significant when translated in terms of food production. The water buffalo, for example, is highly prized for tilling ricelands and when the farmer loses his only animal it usually means working the land by hand. The spread of rinderpest to a great number of animals in one province often results in a local famine. Thus, for an area such as the Far East in which the great majority of the population obtains more than 70 percent of its total calories from rice, effective control over such a dread disease as rinderpest alone would represent a major victory in behalf of the well-being of these people.

But applying preventive measures and controls over animal disease is only part of the big job that needs to be accomplished. A formidable obstacle to agricultural improvement and to general economic development of most backward countries is the ill health of their people, which sharply reduces working efficiency and shortens their working life. Tuberculosis, malaria, smallpox, cholera, and various other diseases and intestinal parasites are common in many areas due to the lack of control and preventive measures.

Many of the same problems that beset the underdeveloped countries of the world exist in varying degrees in the more advanced countries. We need only to look about us here in the United States to see how true that is. However, when we make some comparisons, even at random, it is not too difficult to realize how fortunately we are situated. But we cannot afford to be content with the rate of our own

In many countries, waterways remain the principal medium of transportation.

New to the Far East is the school lunch program introduced in Japan by the American occupation forces.

progress, neither can we be complacent over the needs of others. For wherever poverty exists it can only handicap the more prosperous.

We have had some valuable experience in sharing our scientific knowledge and technical know-how with the nations of Latin America since 1939. Though this cooperative work has had little publicity, it has made a valuable contribution to the agriculture of those nations and to the United States. Latin Americans have been brought to this country to study in our agricultural colleges and institutions. Our specialists have been invited to advise with Latin American governments and to teach in their colleges. We have also cooperated with those nations in setting up seven agricultural stations for experimentation and teaching.

This program has been so successful that Congress, in the Smith-Mundt Act of 1948, authorized its extension to other parts of the world "to promote the better understanding of the United States among the peoples of the world and to strengthen cooperative international relations." The Smith-Mundt Act may well tie in with the "bold new program" on which the United States is about to embark and also with what can be done through the European Recovery Program under the Foreign Assistance Act.

In my travels through Europe and Asia, studying agriculture in those areas, I have said to myself time after time: "What these farmers need are some good county agents and home demonstration agents." Here is where the Foreign Assistance Act fits into the picture. One of its provisions requires that all grants made by us to governments taking part in the European Recovery Program must be matched by their local currencies, which must be set aside for certain purposes, including "the stimulation of productive activity," and other related objectives. Why shouldn't some of that money be used to expand agricultural services—such as extension work, crop reporting, and research? A positive answer to that question is now taking shape. This approach does offer good possibilities of helping nations abroad profit from our own excellent experience with extension work and related activities for agricultural improvement.

While the European farmer is far more advanced than his Asiatic counterpart, his method of farming still requires a great deal of backbreaking labor. In many areas, producing a crop is the job of the entire family and the pressure of field work on farm women leaves them with little time for improving home living. But since the end of the war there has developed a great deal of dissatisfaction with this sort of existence. Many of these farmers have learned the value of farm machinery (much of it American made) during recent years and are anxious to put more of this equipment to their own use. Their governments are also interested in mechanization of agriculture, but largely to increase domestic food output and promote greater self-sufficiency. In some of the countries, government officials maintain that too much of the farmers' land and labor goes to feeding workstock. Further, many of their farms are too small to utilize effectively the workstock that they have. These officials believe that small farmers in particular could be helped materially through cooperative use of farm equipment and thus release more land for food production.

Thus, with more and more emphasis being placed on wider use of agricultural machinery, there is good prospect of a change in many of the established customs long considered characteristic of European farming. Many of the countries of Europe, especially those taking part in the European Recovery Program, are working closely with FAO on the problem. But it will take more than an increased use of farm machinery to bring about the modernization needed by European agriculture. Also required are improved strains of seed, a greatly increased production and expansion in use of fertilizers and insecticides, along with an overhauling of other phases of their national economies.

Both farmers and consumers are greatly handicapped by antiquated methods of handling and dis-

tributing food after it is produced on the farm. Even in the more advanced countries of Europe there is a great deal of waste and loss in food value due to the inefficiency of distribution. I saw a striking example of this in London on a Sunday in mid-July when, at the invitation of a friend, I visited one of the city's major wholesale fresh fruit and vegetable markets. I knew what such a market would look like in the United States. Though it might fall short in some respects, it would still have fairly ample buildings and each would have suitable storage for the various products handled. There would be refrigeration for the products that needed it. Products that needed cool temperatures or darkness would have that kind of storage. So I was curious to see how this London market would compare.

What I saw was mostly an open, huge, stall-like structure. The stalls of the various merchants were separated only by wire. There was nothing to protect the produce from the hot July air. This was at the height of the produce season but since it was Sunday, the market was closed and vast quantities of fruits and vegetables were being held over for sale the next day. There were tender fruits imported from Italy and other countries—plums, peaches, melons. There was a great variety of vegetables—beets, carrots, tomatoes, and others that are so common to us in July. Most of this produce had been brought into London at great expense, but here it was deteriorating rapidly.

Typical of what I saw was a tremendous pile of beets, stacked on the floor inside of one of the cagelike stalls. The beets were a wilted mass. Unquestionably, all of them were sold the next day. They had been handled that way for years!

This lack of adequate facilities for handling food goes through the entire European distribution system, although it is not nearly as serious as in the Asiatic countries. There are few refrigerated railroad cars, refrigerated warehouses, or canning plants in all of Western Europe. And, of course, the situation is worse in Eastern Europe. Electric refrigeration in the home is practically unknown. In England, there are quite a number of old-fashioned ice boxes, but the use of ice is rare in the average home or food business on the Continent. The lack of adequate facilities for refrigerating, cooling, or canning means that perishables have to be eaten within a short time after they leave the farm, otherwise they either suffer great loss in food value or actually go to waste. And the amount of wastage is high, entailing a loss that food-short countries can ill afford.

What I saw in Rumania on one occasion serves to

Fortunate is the Far Eastern farmer who owns a draft animal. The water buffalo is highly prized.

Human draft power is a familiar sight in many countries.

emphasize how great this waste can be. It was during the summer when I was there and the country was suffering from the worst drought in years. There had been no rain for 3 months. Corn, up knee high, had withered and dried to a tinder. Trees were fast becoming leafless. Pastures for the cattle had dried up, and the prospect for winter feed was black indeed.

Faced with this critical situation, Rumanian farmers were forced to kill off large numbers of their cattle so that the animals would not die from thirst and starvation. But facilities for storing the meat by refrigeration or canning were practically nonexistent. So in spite of the prospects of a hungry winter, the nearby populace had to eat this meat as fast as the cattle were slaughtered. Because of the lack of facilities for processing or storing the meat for future use, cattle prices had dropped to ridiculously low levels. I was told that good cows could be bought at the time for the equivalent of $5 a head.

In all the countries where these serious shortcomings in food handling and distribution exist, they have had a profound effect on peoples' diets. Under such circumstances, the availability of fresh meats, milk, fresh fruits, green vegetables, and fresh fish is definitely limited both by the time of the year and the location of the supply. As a result, variety in the diet is greatly restricted, with grains and potatoes being the mainstays of everyday eating.

But the inescapable fact is that most of the people of the world are not getting enough to eat—even of grains and potatoes. That situation has existed for a long time but is only now beginning to receive the attention it so desperately needs. In the past 10 years alone, the population of the world has increased by an amount at least equal to the total number of people living in the United States. But the production of food and other basic necessities has not kept pace with the increasing number of mouths that have to be fed. Even with the good crops of this past year, the total world food supply on a per capita basis is 15 percent less than prewar.

The experts figure that by 1960 the world may have 25 percent more people than it had prewar. Thus, it is evident that the world must aim to do far more than restore world production to prewar levels. In the case of food alone, FAO has estimated that to meet minimum nutritional needs of the world population forecast for 1960, food production would have to be increased above prewar levels by the following amounts: Cereals, 21 percent; roots and tubers, 27 percent; sugar, 12 percent; fats, 34 percent; peas and beans, 80 percent; fruits and vegetables, 163 percent; meat, 46 percent; and milk, 100 percent. In addition, production of cotton, wool, rayon, and other fibers for clothing would have to be increased 130 percent over the prewar level and this would provide the people of the world with no more than 50 percent of the prewar consumption of these fibers in the United States.

Here, then, is the challenge that today faces the world in its struggle for a more secure future. It is a challenge that can be met through intelligent and united action to increase production, raise buying power, and improve distribution within and among the countries of the earth. Fortunately, the skill and knowledge needed to tackle this job are now available. It is a long-range job and must be undertaken, but in the end it should pay off in the achievement of peace, plenty, and freedom for all mankind.

Reading about... Foreign Agriculture

The Market for United States Tobacco in Western Europe, a Foreign Agriculture Circular FT–2–49, OFAR, USDA. 16 pp., Washington, D. C., 1949. Report by C. B. Cheatham, Jr. on his studies in Europe of production and use of tobacco and tobacco products as they relate to the export market for the United States leaf. This study was made under the provisions of the Research and Marketing Act.

The Interdependence of Canadian And United States Agriculture*

by FRANCIS A. FLOOD

The now famous Hyde Park Agreement, arrived at in 1941 by President Roosevelt and Prime Minister Mackenzie King of Canada, was a declaration of the importance of cooperation between Canada and the United States. It discussed "measures by which the most prompt and effective utilization might be made of the productive facilities of North America . . ."

The declaration dramatized a close cooperation that then already existed between the two countries and that is aggressively active now, in many and varied fields. There are many examples of that cooperation today, some dramatic, some obscure.

As a result, today, if a group of enemy bombers should ever attempt to destroy North American cities or a devastating horde of flying grasshoppers should advance to lay waste its wheat fields, the result would be the same. A combined Canadian-United States counterattack, jointly planned in every detail and jointly executed, is ready to repel any invasion against their common security.

Everyone knows that the Permanent Joint Board on Defense, Canada-United States, meets regularly to plan for common defense.

Similarly, another joint organization has been holding regular meetings for years, making joint research plans for grasshopper control activities that are carried out each year in both countries. Field surveys, in Canada and the United States, establish in advance the areas where heavy infestation will appear the next

*As further evidence of Canadian-United States interdependence, the author gratefully acknowledges help, in the preparation of this article, received from Dr. J. F. Booth, Associate Director of Marketing, Dominion Department of Agriculture, and members of his staff. Dr. Booth was formerly with the U. S. Department of Agriculture.

New fruit orchards reach across South Thompson Valley, British Columbia.

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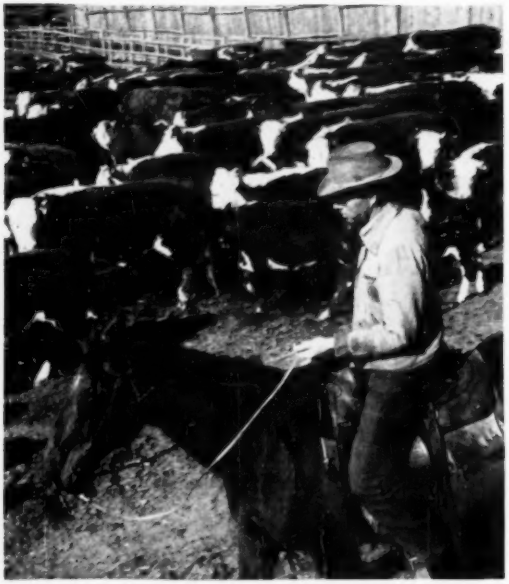

Some of Canada's cattle is fattened at home; some is shipped to United States feedlots for finishing.

year, the results are exchanged automatically, and a combined plan of control is agreed upon and carried out.

But this cooperation in fighting each other's grasshoppers is only one example of the mutual interdependence of Canada and the United States in the field of agriculture. There are many other examples—and particularly in agriculture—of as great a degree of cooperation as there is between any of the States in the United States. There are also occasional examples of a lack of cooperation, just as there are examples of sectionalism, for a short-term or local gain, shown by some of the States or by some of the Provinces.

An indication of this interdependence is the fact that in 1946 and 1947,[1] United States exports to Canada of products of farm origin, raw and processed, averaged more than $200 million a year, and the United States bought between a half and a third as much of farm products from Canada. Next to the United Kingdom, Canada is normally the biggest foreign customer of the United States farmer.

Per capita, Canada's 13 million people buy and consume many times as much United States farm products as their 148 million neighbors to the south buy from them. United States sold to Canada in 1946 and 1947, in round numbers, annually, farm products as follows: Raw cotton, $42 million; fruits and nuts, $62 million; grains and feeds, $25 million; vegetables and vegetable preparations, $25 million; animals and animal products, $15 million.

The United States bought from Canada in those years, in round numbers: Fruit, $6 million; vegetables and vegetable preparations, $8 million; seeds, $4 million; grains and feeds, $28 million; animals and animal products, $22 million.

Although Great Britain is Canada's best customer for its wheat and flour, bacon, and cheese, the United States is Canada's best customer for coarse grains, clover and alfalfa seed, certified seed potatoes, poultry, and cattle, including breeding stock, dairy cows, and feeder and slaughter cattle.

Canada buys United States cotton and citrus fruits the year round, its fresh vegetables and fruits during the winter months and to some extent at other times, and its new potatoes and early apples before theirs come on the market.

The size of these sales of surplus farm products, year after year, to Canada indicates the value of the Canadian market as a whole to the United States farmer as a whole. The United States sells much more than it buys. And in general the products that are sold to Canada are surplus commodities.

This two-way trade in farm products should continue to flourish. Much has been done to encourage it. At the recent Geneva Conference, tariff concessions were granted by both countries. The United States increased the cattle quota on both heavy and light cattle that may enter at the lower rate, halved the duty on beef and veal, and on lamb, mutton, and frozen pork, and also on wheat and flour. The tariff rates were reduced on cheddar cheese, whole milk and cream, and eggs. The former duties on live poultry,

[1] It is true that the trade during 1946 and 1947 is not entirely typical, but no single recent period is. The year 1948 is not included because in that year Canada's emergency exchange control program was in effect, which restricted or prohibited the importation of many farm products from the United States. In 1946 and 1947 the wartime ban on cattle, beef, sheep, and mutton exports to the United States was still on. The ban was removed in August 1948, and the United States imports for the year amounted to about $85 million of cattle and beef, and $2 million of sheep and mutton. The trade in 1946 and 1947, however, presents a general round-number picture of the balance of Canada-United States trade.

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baby chicks, canned chicken, and dressed poultry, except turkeys, were cut in two.

Among the concessions made by Canada, the abolition of the system of advanced valuations for duty purposes on fresh fruits and vegetables is important. A nice beginning was also made with respect to removal of Empire preference, which Canada has enjoyed in Empire markets. The Canadian duties were entirely removed from imports of grapefruit; vinefera grapes; dried, unpitted plums and prunes; peanuts; and oranges. In addition the duty was reduced on imports of canned fruits, frozen vegetables, baby chicks, eggs, corn, shelled nuts, and tobacco.

If that kind of coopération, on both sides of the border, continues to reduce rather than increase trade barriers, the mutual benefits of this trade between the countries should be increased in the future. There are many evidences of this cooperation, of temporary sacrifices for an ultimate gain.

One such example is the cooperation by Canada recently in connection with the United States potato problem. When the record United States potato yield of 1948 resulted in the Government supporting the potato price, Canadian potatoes were attracted across the border. This had the effect of extending the price umbrella over Canadian potatoes. Although the problem was the United States own domestic problem, Canada agreed in November, at the United States request, to embargo the further shipment to that country of all table stock potatoes and also to limit the export of seed potatoes to areas and dates agreed upon, so that Canadian potatoes could be used in the United States only as seed. This voluntary cooperation by Canada was helpful in protecting for the future the valuable two-way potato trade.

For that potato trade is very much two-way. Let us examine it. It is a striking illustration of the interdependence, agriculturally, of the two countries. It should be of special interest to any local groups who do not see beyond their own commodity in this matter of total, two-way trade and who favor trade barriers of one kind or another to protect that one commodity, regardless of the effect that similar barriers would have on the United States total trade, which is so greatly in its favor.

United States potato farmers like to buy seed potatoes from Canada. In some areas they depend on Canadian seed potatoes to a considerable extent. Imports of these potatoes for the past 5 years, 1944–48, totaled $18,900,000. Since United States farmers bought these seed potatoes, it could be reasoned that they benefited by these imports.

Potato farm in New Brunswick. Canada does a large business in the production of certified seed potatoes.

As for table stock potatoes for the consumer, that is something else. The United States ships early potatoes to Canada, and Canada ships potatoes later in the season to the United States. In 1948, United States imports of table stock potatoes from Canada totaled $3 million, and United States exports to Canada were only $377,000. That year, however, imports of potatoes were subject to quota under the Emergency Exchange Conservation Act. An importer was allowed 50 percent of the total value of his imports of items in the fresh fruit and vegetable category (potatoes, onions, apples, citrus fruit, and citrus juices) during the period July 1, 1946, to June 30, 1947. This quota could be used to buy any of the items within the category. In October 1948 the quota was increased to 70 percent, and on April 1, 1949, it was further increased to 80 percent. The year before, 1947, the United States imported from Canada 4 million dollars worth of these potatoes and in return sent Canada 1.2 million dollars worth. But the year before that, 1946, United States imports from Canada of table stock potatoes were only $180,000, compared with exports to Canada of 6.2 million dollars. The year before that, 1945, the value of United States imports from across the border was 4.6 million dollars and that of United States exports to Canada was 4.7 million dollars.

Each year a joint meeting is held of representatives

of the apple industry of each country. These include the producers and the dealers and Government officials. Agreement is reached on the maximum quantity of apples to be exported from Canada to the United States. The agreement represents the maximum that the Canadians might ship to the United States and does not commit the United States to take that amount. Arrangements are made for spreading out the shipments over time periods that are mutually agreed upon, to avoid flooding the markets at any one time. Arrangements are also made for as widespread a distribution as possible of Canadian apples over the United States to avoid gluts in any one market. In 1947 the United States bought $3,500,000 worth of apples from Canada and sold to Canada $1,002,000 worth of apples the same year.

In 1948, Canada's exports to the United States of live and dressed poultry increased as the former British market disappeared. To prevent heavy receipts of Canadian poultry from depressing the United States markets, Canadian officials carefully screened export permits so as to spread out the exports to as many different United States areas as possible and thus reduce the concentration in the Detroit, Buffalo, and other gateway markets. Although the tariff rates and the whole subject of poultry exports to the United States had been recently reviewed at the Geneva Conference and agreed upon, this additional care, taken voluntarily, by the Canadians is another evidence of cooperation in matters of trade between the neighbors.

Ontario and Quebec are famous for their maple-sugar products. Canadian workers often come down to help harvest New England's maple-sugar crop.

Since there are some differences at present between the Canadian and the United States grades and standards for live and dressed poultry and for eggs, Government poultry officials of the two countries have recently held a series of joint meetings to develop a uniform grades and standards system and to develop improvements in the sanitary requirements and inspection programs of the two countries. Each country has made some modifications of its former grades and standards in order to reach agreement on a common poultry inspection and grading program.

But, although trade is one of the most apparent evidences of this Canada-United States cooperation—since it can be measured in dollars—there are many other evidences of the interdependence of the two countries.

The Canadian border separates two areas that are very similar agriculturally. Canada's Prairie Provinces are more like the United States Great Plains area than they are like the eastern Provinces of Ontario, Quebec, or the Maritimes. Similarly, the Dakotas, agriculturally, are more like the Prairie Provinces than they are like the New England States. British Columbia and Washington State are more similar to each other than they are to eastern Canada or the United States.

Various areas in the United States have more differences, agriculturally, than the areas separated by the Canadian border. If trade barriers existed between the Northern and the Southern States, for example, equal to the trade barriers still existing between Canada and the United States, the economic wisdom of keeping such barriers down to the minimum would be apparent.

Partly because of this great similarity of their agricultures, and the fact that the barriers are kept down, Canadian and United States farmers rely on each other for many things that the farmers need, themselves, as producers. Seed potatoes and grasshopper control have been mentioned, as illustrations. The list is long and interesting. It includes seed, feed, fertilizers, farm labor, research. There is not space here to do more than mention a few examples.

Cooperation in pest control, for instance, is very

Bacon-type hogs are produced in Canada for the export market.

close. Mr. W. N. Keenan, Chief of the Division of Plant Protection, Dominion Department of Agriculture, says, "The United States Entomological Service is regarded as the most extensive in the world. The Canadian Service ranks second in that field. Specialists in these services, in effect, operate as a unit in both research and control activities."

When pests of foreign origin have first become established in the United States before gaining a foothold in Canada, United States technicians have not only cooperated with Canadian officials but have also furnished both staff and equipment in Canadian eradication programs. The joint efforts to eradicate the European corn borer in the 20's and the Japanese beetle in 1940 are historic examples. The Gypsy moth, established in the United States years ago, cost millions of dollars in control effort. When a small, localized outbreak was discovered in Quebec in 1924, the United States furnished spraying equipment and staff, and the outbreak was eradicated in 2 years at a cost of $150,000. In 1936, another outbreak at the New Brunswick-Maine border was eradicated, through joint effort, in the first year. When the pear psylla eradication program was under way in Washington State in recent years, the success of the effort depended on extending the program in the Okanagan Valley in British Columbia, with some cooperation from the Dominion, and the work was continued for 3 years.

In other words, in the field of pests, each country allows the policemen of the neighboring country to pursue and hunt down its enemies wherever they are found. In addition, officers of each country carry out inspection of importations for the other, to implement the quarantine regulations prohibiting or restricting imports for specific reasons.

For economic and geographic reasons, Canada and the United States have developed over the years a dependence on each other for various seeds. Canada is a traditional buyer of United States produced vegetable seeds and grass seeds. In return, along this two-way street, the United States regards some Canadian seeds, such as alfalfa and clovers, as especially well adapted where winter hardiness is important. The United States Corn Belt States even buy hybrid seed corn developed in Ontario.

Because of the long distances within the respective countries, it is more economical, in the case of some feeds, to buy them from a nearer north or south neighbor than to pay the freight for the long haul from the other end of the feeder's own country. Feedstuffs imported by the United States from Canada include fish meal, meat meal, mill feeds, barley, beet pulp, and

hay. The reverse movement sends corn, soybeans, soybean oil meal, and cottonseed meal to Canada.

Similarly, the two neighbors depend on each other for fertilizers. United States farmers imported in 1948 from Canada about 90,000 tons of nitrogen equal to 450,000 tons of 20-percent material, and last year Canada imported from the United States about 3,300 tons of nitrogen as nitrogen solutions. Canada also imported from the United States in 1948 about 400,000 tons of natural rock phosphate, about 100,000 tons of superphosphate, and some 60,000 tons of potash.

The exchange of farm labor between the two countries is also important. Fifty years ago there was an annual trek of maple-sugar workers from Quebec to Maine and Vermont. In recent years, this and other labor exchanges have been Government-assisted and directed until, in 1947, more than 12,000 workers crossed the border in six organized movements. In 1948, about 400 Canadian maple-sugar workers went into the United States sugar bush for the spring run.

Since 1942, provisions have been made for wheat combine harvesting outfits and crews from both countries to follow the harvest from Oklahoma to the Prairie Provinces. Permits to cross are limited, by mutual agreement, to the number actually needed, and the agreements include arrangements for return dates and proper charges. In 1948, some 441 Canadian combines and 1,350 men were cleared at the border, compared with 1,150 combines in 1947. This movement was particularly valuable during the war years of shortages of harvest machinery and labor.

Last year, through joint arrangements, some 200 workers were moved from Saskatchewan to the sugar beet areas of Montana, for blocking beets, in June, and the same number in October for the beet harvest.

About 125 Canadian pea harvesters went from New Brunswick to Maine, in July, at the request of employers there.

Since the Ontario tobacco harvest is later than in the United States and skilled tobacco labor is scarce, curers and handlers from North Carolina, Kentucky, and Virginia are brought to Canada each year. The number has varied from more than 2,000 workers in 1942 and 1946 to about 1,300 in 1947 and 1948.

Since 1942, potato workers have been recruited from Quebec and New Brunswick for the annual harvest in Maine. The number was about 6,600 in 1947 and 5,900 in 1948. Similarly from 700 to 1,200 potato pickers from Manitoba have been moved into North Dakota each fall in recent years.

Of course, there are also occasional examples of lack of cooperation between the countries. For instance, early this year the Washington State Legislature considered House Bill 176, an act regulating traffic in fresh berries entering Washington State "from any foreign country" and prescribing fees and penalties. It had the appearance of being designed to restrict the import of certain berries into Washington from Canada. British Columbia growers feared it as a threat to their berry industry. A Victoria newspaper spoke of a move to have "retaliatory legislation" presented before the British Columbia Legislature immediately.

In 1947 the United States had exported to Canada $1,210,000 worth of fresh strawberries and other berries while buying from Canada less than half as many, not counting blueberries. In 1945–47, rail shipments alone from Washington State to British Columbia averaged 159 carloads annually of vegetables and soft fruits—and more than that went in by truck. United States export of fruits, vegetables and vegetable products, and berries to Canada in 1946 and 1947 averaged $84 million, or about six times as much as it imported from Canada.

The lower House of the Washington Legislature passed the bill by a good majority, but it was killed in the Senate. The mutually profitable trade between the countries will continue.

There are occasionally other such examples, on both sides of the line, but the general trend is toward more and more cooperation between the two countries in every way. The spirit of the Hyde Park declaration prevails.

Ifugao Rice Terraces—Ancient Luzon Wonder

By GREGORIO D. DIZON

High above the coastal plain in the inaccessible mountains of Luzon is one of the wonders of the world—the Ifugao rice terraces of the Philippines. These stone-walled terraces are the highest, best built, and most extensive in the world. Archaeologists believe the natives spent more than 2,000 years building them. They are an admirable engineering feat even in modern engineering terms. If these walls, covering 250 square miles, were placed end to end, they

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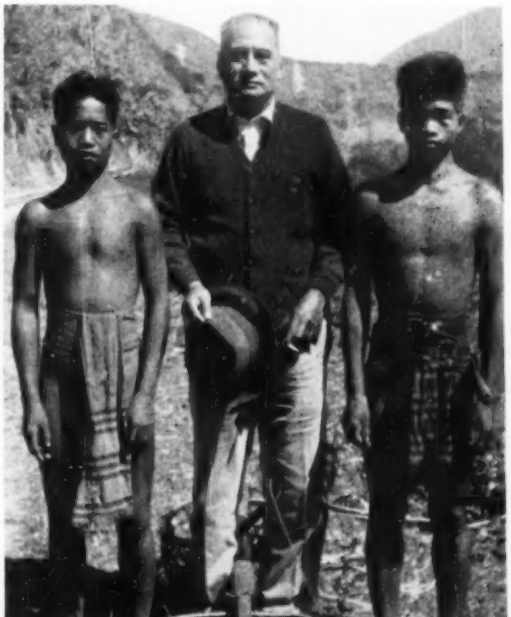
Ifugao rice terraces range for miles across the mountainsides of Luzon.

would undoubtedly reach half way round the world.

How did the Ifugao natives happen to build these rice terraces, as high as a thousand feet up the sides of the mountains? Historians can only speculate. They do believe, however, that the terrace culture was brought by a single migrating people from southern China across to Luzon and Japan and south to Java and the lesser Sundra islands. The first migration probably began in the second millennium B. C. The people carried a material culture of polished stone, copper, and bronze. A thousand years later the second wave of migrators brought a knowledge of the use of iron, pottery, and woven cloth.

Philippine history records that the Ifugaos invaded the islands and conquered the original inhabitants, the 4-foot, black, kinky-haired Negritos. The Ifugaos were in turn driven up into the hills by later invasions of Malayans who became the ancestors of present-day Christian Filipinos.

Today these highland dwellers have a distinct culture and civilization, still working with brass and copper as they did long before the arrival of the white man. And it was this half-naked tribe that engineered the rice terraces, which appear to sit eternally on the mountainsides of Luzon.



Two Ifugao natives pose with the author, Dr. Dizon.

Corn Breeding Program in Mexico

by JOHN O. HOPKINS

The principal item in most Mexicans' diet, corn is undergoing an intensive series of tests and cross-breedings to improve the yield of Mexican cornfields. The project was instituted in 1944 by the Rockefeller Foundation, in cooperation with the Corn Commission of the Mexican Government, and although it is a long-range program, results are already promising. Of the total 1948 corn crop—111 million bushels harvested on 9,200,000 acres—hybrid and other improved varieties from 620,000 acres produced 6 to 9 million bushels. Foundation scientists estimate that the yield capacity of the best criollo hybrids can be increased at once by 15 to 20 percent and in time by 50 to 100 percent.

As the yield improves, the demand for corn as a direct food is being met, and many more bushels are being routed to feed livestock and poultry. This in turn will make available larger supplies of beef, pork, dairy products, and eggs to vary the diet of the Mexican people.

The 111 million-bushel corn crop harvested in 1948 was well above the 1947 production figure of 99 million bushels. The prewar average of 68 million bushels per year had never been adequate to meet the demands of the Mexican people.

Corn is by far the most important crop in Mexico. Of the 42 crops and 22 fruits harvested in 1945, corn occupied 54 percent of the land. By comparison, only 25 percent of the cultivated land in the United States grew corn that year.

Hundreds of different corn strains have long been used in Mexico, and in general they have been low

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yielders. According to the Ministry of Agriculture, the average crop from 1941 to 1945 produced 10 bushels per acre. For the same 5-year period, the average yield in the United States was 32.8 bushels per acre.

Program Operations

The Rockefeller Foundation began its research work in 1944. Its technical staff is comprised of 2 geneticists, a soil scientist, an entomologist, and a plant pathologist. The Mexican Government assigned 10 to 15 young men to be trained and assist in the project.

To establish a basis for study, a collection of corn varieties was made from all parts of Mexico. Of more than 2,000 samples assembled by the Foundation, about 5 percent showed promise as high yielding varieties.

Synthetics were developed by crossing open-pollinated varieties and inbred lines to obtain special characteristics. About 90 of these synthetics have been developed, and 8 of the most promising are now in commercial use.

To produce hybrids with higher yield potentials than the open-pollinated or synthetic seed, pure lines were evolved and then combined. Eleven hybrids have been increased and placed on the commercial market.

These corn varieties have been developed for planting in temperate upland regions. The Foundation also has 3,000 self-fertilized or pure strains of tropical corn under test. Rocamex 520, a selection from the best tropical varieties, has been developed and 20 tons of it distributed for commercial planting in 1949. During the past 2 years, other promising improved varieties have been increased for commercial production. Some of the 3,000 corn strains now under test will be used to produce synthetics and hybrids in the future.

The Rockefeller Foundation is working in close cooperation with the Corn Commission of the Mexican Government. This Commission was created by Presidential decree in January 1947 to handle the increase and distribution of seed corn to farmers throughout the country.

The improved seed is planted by reputable farmers, working under contract to the Corn Commission, in fields isolated from other corn varieties. From the hybrid crop produced, the Commission buys only the corn of the female strain, paying a contracted price, which is materially higher than the prevailing commercial prices. The Commission shells, grades, and disinfects the seed, then distributes it to farmers. The fields of hybrid corn raised by contract farmers are inspected at regular intervals by agronomists of the Commission.

The group is carrying on a constant program to acquaint farmers with the improved seed, urging them to use it. Farmers can purchase this seed for cash or in exchange for equal weights of their own native seed.

To determine which strains are best suited for each region, the Commission is experimenting with different crosses and varieties in test fields scattered over the country. Five hundred plots have been planted on ejidos—land grants under the Mexican Government's land-distribution program—to stimulate the peasant farmers' interest in improving the corn on their grants.

Farmers of these ejidos, which are located chiefly on the central plateau, are asked to plant an acre of their native corn and an acre of the improved strain on an adjacent plot, both on the same day. Fertilizer of the 10 : 8.5 : 0 formula is then applied to half of each plot. In most cases this serves as a forceful demonstration of the superiority of the improved corn and the benefit of fertilizer.

The Corn Commission is now focusing its attention

Gathering data on improved varieties of corn in Mexico.

Field day demonstration of the corn improvement program, Vista Hermosa.

on soil improvement to enable farmers to take full advantage of the improved corn. It is encouraging the use of the 10 : 8.5 : 0 fertilizer, which costs $100 per ton in Mexico. As a result of tests made by the Rockefeller Foundation, it is also suggesting the use of hubam clover for soil improvement.

Improvement Programs for Other Crops

In addition to the corn improvement program, the Rockefeller Foundation is sponsoring similar programs for other crops—wheat, beans, soybeans, and grain sorghums. These programs are under the direction of the Comisión de Semillas Mejoradas, which consists of the Minister of Agriculture, the Sub-Secretary of Agriculture, the Director General of Agriculture, the Director of Experiment Stations, and the Director of the agricultural program of the Rockefeller Foundation.

Research for wheat improvement is not as far advanced as the corn program. In the summer of 1948, four improved varieties of wheat were planted on 1,000 acres of land to produce 600 tons of improved seed for replanting 15,000 acres in the winter of 1948–49.

The bean improvement program of the Foundation was hampered in 1948 by an infestation of white fly. But three varieties of beans are available for distribution this year.

Of 153 varieties of grain sorghums subjected to a 2-year test for yield and adaptability under the improvement program, 5 strains are being increased. Similar results have been obtained with selections from 150 varieties of soybeans.

To Mexican farmers, these research programs mean larger yields from crops of better quality and a greater financial return at the market. To average citizens, they afford an all-round improvement in the choice of foods within their budgets. And to low-income peasants of the country, the programs offer more corn for their tortillas and more feed for their animals. The program is continuing with these objectives in mind.

Businessmen Appraise Research and Marketing Activities

A group of leading American businessmen from the fields of agriculture, industry, and education meets frequently in Washington with U. S. Department of Agriculture officials, to appraise programs investigating foreign markets for United States products.

The Committee, known as the Foreign Trade Advisory Committee, is set up under the Research and Marketing Act. Under the act, United States commodity experts are working in 50 countries to appraise new areas of competition and to stimulate foreign interest in those United States farm products that are usually grown in excess of normal domestic demands.

To study the progress being made by the commodity specialists and to recommend commodities and areas for future surveys, the Foreign Trade Advisory Committee met recently in Washington.

The Committee noted, in discussing work on the project "Appraisal of Factors and Trends in World Demand for United States Agricultural Products," that surveys of individual commodities could not be fully effective until there is a better understanding of the broad problems of international trade. In addition to continuing long-range governmental studies in this field, it was noted, funds should be allocated to private concerns for separate research relating to the whole governmental program affecting foreign trade.

A second project of the Committee is "Development of Foreign Outlets for United States Agricultural Products in Plentiful Supply and Study of Foreign Competition." Members expressed belief that the program should be continued and expanded to cover more commodities in additional producing and consuming areas.

Edward J. Grimes, Minneapolis, vice president, Cargill, Inc., presided as chairman of the meeting. Committee members from American business are Victor Acer, Buffalo, Spencer-Kellogg and Sons; Douglas W. Brooks, Memphis, president, Union Compress Co.; O. B. Jesness, St. Paul, chief, Division of Agricultural Economics, University of Minnesota; W. I. Myers, Ithaca, dean, College of Agriculture, Cornell University; Edward J. O'Brien, Jr., Louisville, Edward J. O'Brien & Co.; Howard W. Selby, Boston, general manager, United Farmers of New England,

Foreign Trade Advisory Committee. Seated, left to right: Howard W. Selby, Jesse W. Tapp, Marvin H. Walker, Edward J. O'Brien, Jr., Edward J. Grimes, Chairman, W. I. Myers, V. A. Acer, O. B. Jesness, and Douglas W. Brooks. Standing, left to right: A. Rex Johnson, E. A. Meyer, and Barnard Joy.

Inc.; Jesse W. Tapp, San Francisco, vice president, Bank of America; Marvin H. Walker, Lakeland, Fla., general manager, Florida Citrus Commission. Allan B. Kline, president of the Farm Bureau Federation, was unable to attend. Barnard D. Joy, assistant to the RMA administrator, is executive secretary of the Committee; E. A. Meyer, Administrator of the Research and Marketing Act, and A. Rex Johnson, OFAR representative on the Committee, also participated.

Nepal's Plans for Economic Development

By CLIFFORD C. TAYLOR

The small Himalayan kingdom of Nepal, sandwiched between India and Tibet, is planning a series of 5-year programs to improve its agricultural and industrial production. New factories to process native-grown rice, cotton, oilseed, timber, and leather are listed for construction during the first 5-year period. A system of roads will be built to ease the present burden of transporting goods from train to truck to power-driven ropeway to human back to destination. Plans to harness the electrical power of the Kosi River with the highest dam in the world are under consideration by the Nepalese and Indian Governments.

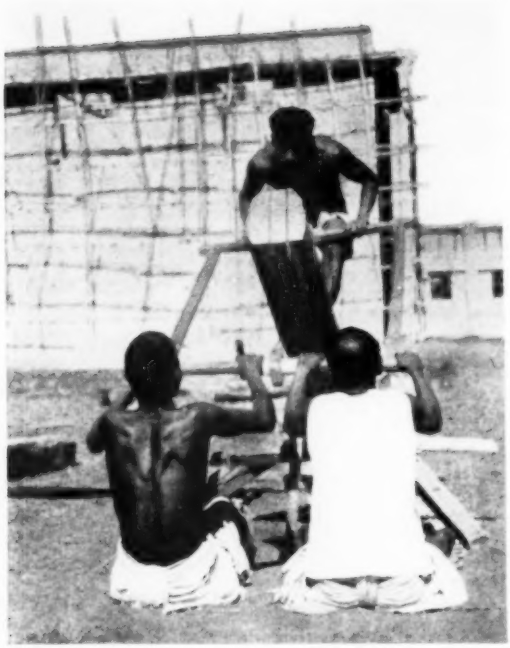
A country of 56,000 square miles on which 7 million people earn a precarious living, Nepal's chief economic assets are the farm products grown on the narrow, flat plain of the Ganges River along the Indian border and the hardwood forests dividing the plain from the foothills. Exports of jute, rice, oilseed, and ghee (clarified butter) are moved across the border to India. Income from these exports is combined with the money earned by mercenary Gurkha troops serving in India to finance the imports vital to the life of the tiny state.

Nepal is far from self-sufficient. Salt, sugar, cloth, cigarettes, and industrial goods are imported from India, and the exchange value of the Nepalese rupee is said to vary with the availability of Indian goods. The demand for cloth overshadows every other import requirement.

The 25 industrial plants proposed under the first 5-year program will double the industrial output of the country. The estimated cost of these projects will run about $31,000,000 for the first year or two, half of which will require foreign exchange.

Meanwhile, the Indian Government is going ahead with its plans to erect the dam on the Kosi River in Nepal to provide power and irrigation water not only for the eastern part of Nepal but for India as well. Nepalese officials in Kathmandu, the capital, have expressed some doubt as to the wisdom of building the mammoth dam in an area often subjected to earthquakes. They point out that the high proportion of silt in the river would soon fill the dam lake and destroy its usefulness. But if engineering problems can be overcome and the dam constructed, the electric power line into India will run close to the Nepalese industrial center of Biratnagar and furnish power for new factories there. Proposed canal irrigation from the dam will assure enough water for a two-crop yield per year in the surrounding area. Lands now arid

A large jute mill looms behind these cottages in Nepal.



Nepal plans to introduce modern lumbering techniques to replace laborious hand sawing methods.

can be farmed with a water supply pumped in by electric power. The entire project promises increased production of food grains and cash crops.

Present transportation facilities are so inadequate that goods shipped from one side of Nepal to the other must be carried across the northern part of India on Indian roads, then brought back into Nepal near their terminus. Roads now in use across the fertile agricultural plain can be traveled by bullock carts, but, in the mountainous sections, coolies carry freight on their shoulders over footpaths to village destinations. Around Kathmandu, there are a few miles of roads that can be used for motor traffic, but each car and truck must be carried in by about 100 coolies.

If these projects are completed in 5 years as estimated, the Government will launch its second 5-year plan to build 10 plants for the production of soap, matchsticks, cigarettes, plywood, and sugar. The third period will add factories for chemicals, glass, canned goods, and shoes.

Dr. Taylor is Agricultural Attaché, American Embassy, New Delhi, India.

This broad expansion program will step up the agricultural and industrial output of the country and allow it to trade on a more equal footing with its Asiatic neighbors. If financed and developed as it is envisioned, the program will bring higher crop yields to the farms on the Ganges terai, electrical power to new or improved industrial enterprises, and roads to carry the products of farms and factories to market.

INTERNATIONAL *Agricultural News*

Foreign Service Officers Discuss Southern Asia at New Delhi Conference

As the Department of Agriculture's representative to the Southern Asian Regional Foreign Service Conference, Wolf I. Ladejinsky, Far Eastern Division, OFAR, attended the 6-day meeting held recently in New Delhi, India. Specialists from the Departments of State, Treasury, Labor, and Commerce also joined the Foreign Service delegates who assembled in the Indian capital from their posts in the various countries of Southern Asia.

The purpose of the Conference was to provide an opportunity for field officers to exchange views with Washington representatives and to obtain a consensus on the mutual problems of the Foreign Service, the Department of State, and other agencies in Washington. In the political and economic sphere, the delegates considered current and proposed United States policies and programs in the region.

To assure a broad basis for the discussion of each topic on the agenda, specialists from diverse fields served on each committee. These included experts in the fields of politics, economics, information, finance, labor, agriculture, and administration.

International Conferences

Following are some of the international conferences of agricultural significance that are scheduled for 1949, 1950, and 1951. FOREIGN AGRICULTURE readers may be interested in some of them. In some cases, definite information regarding the place of meeting and the date is not available now, but revisions will be published from time to time as plans for the conferences are completed.

Organization	*Place*	*Date*
1949		
Agricultural Economists, International Conference of	Stresa, Italy	Aug. 21–28.
Agricultural Extension Specialists Meeting, FAO	Europe	July or August.
Biochemistry, International Congress of (1st)	Cambridge, England	Aug. 19–25.
Chemistry, International Union of	Amsterdam or United States	1949 or 1951.
Conservation and Utilization of Natural Resources, UN International Scientific Conference on.	Lake Success	Aug. 17–Sept. 6.
Dairy Congress, International (12th)	Stockholm	Aug. 15–19.
Dairy Production and Marketing, Improvement of, FAO	Europe	August or September.
Foot and Mouth Disease Control, FAO	London	August.
Forestry and Forest Products Commission, European, FAO		Late September.
Garden Show, International	London	July 27–Aug. 5.
Home Economics, International Congress for	Stockholm	Aug. 22–27.
Infestation in Stored Grain, Control of, FAO	Palmira, Colombia	October.
Inter-American Conference on Agriculture (4th)	Montevideo, Uruguay	Fall.
Livestock Breeding in Tropics and Subtropics, FAO	Cairo	October.
Livestock Production Conference, International	Paris	
Locust Control Conference, FAO	Central America	September.
Ornithological Congress, International (10th)	United States	1949 or 1950.
Plant and Animal Nutrition in Relation to Soil and Climatic Factors, Conference of Specialists on.	Australia	Aug. 22–Sept. 15.
Seed Testing Association, International	Belfast	Aug. 23–25.
Veterinary Congress, International (14th)	London	Aug. 8–13.
1950		
Agricultural Industries, International Congress of (8th)	Brussels	July.
Botanical Congress, International (7th)	Stockholm	Do.
Cotton Advisory Committee, International (9th)	Washington, D. C.	Late in spring or early in summer.
Seed Testing Association, International Congress of (9th)	United States	May.
Sericulture, International Conference of	Possibly New York	
Soil Science, International Congress of	Amsterdam	
1951		
Poultry Congress, World (9th)	Paris	August or September.

Statistical Services Laboratory At Turrialba Proposed

The Inter-American Institute of Agricultural Sciences is considering the establishment of a Statistical Services Laboratory, which would adapt known statistical methods to the various conditions of the Western Hemisphere and experiment in the development of new methods.

Scientists are becoming increasingly aware that the use of informative statistical design and analysis of their experiments can be valuable time-and-money savers. They have found that these methods increase the accuracy of data many times, which in turn reduces costs and allows American countries to stretch limited funds and personnel over a wider field of scientific investigation.

The proposed Statistical Services Laboratory will also serve as a consulting and instruction center for staff members of other agencies conducting research in the natural and social sciences in their relation to agriculture.

Young Ecuadorean Studies U. S. Dairy Methods

Fabián Guareras, young dairy farmer of Quito, Ecuador, will soon be returning to his home after spending the summer studying American dairy methods. He is the first of several young dairymen from the South American republic to come to the United States for additional training under the sponsorship of the Holstein Association of Ecuador. He arrived the first of May, went to Washington State College where his summer schedule was set up, and then to Chehalis to begin work.

Mr. Guareras' trip has grown out of sessions in testing, feeding, herd management, and type judging he attended in Ecuador last year, conducted by M. B. Nichols, Washington State Extension Dairyman.

After observing dairy production on several farms in the Pacific Northwest and in Montana, Mr. Guareras will summarize his experiences and observations before dairy leaders at Washington State College before he leaves for his homeland about September 1.

International Producers Federation Discusses Commodity Agreements

The International Federation of Agricultural Producers, at its recent meeting at the Ontario Agricultural College, Guelph, Canada, inaugurated a program designed to support international commodity agreements.

After passing resolutions favoring the expansion of international trade in agricultural products at stable prices and the disposal of surpluses by international action, the Federation voted to set up a fact-finding staff to gather data that might help to expedite additional international commodity agreements. The Federation offered to assist the Food and Agriculture Organization of the United Nations in such action as it might take to facilitate inter-governmental agreements on cotton, feed grains and concentrates, sugar, wool, wood pulp, and rice.

Other resolutions of the Federation called for an information program to keep member cooperatives informed as to cooperative outlets and sources of supply in various countries and for cooperation with FAO in furthering the agricultural cooperative movement in such fields as education and research, distribution of farm machinery and equipment, cooperative social security for farmers, and international cooperative credit and insurance agencies.

This was the Third Annual Congress of the Federation, an organization composed of leading farm groups from 22 member countries. Members on behalf of the United States farmers are the National Grange, the American Farm Bureau Federation, the National Farmers Union, and the National Council of Farmers' Cooperatives.

Largely through the efforts of the National Farmers Union of the United Kingdom, the need for a world organization of farmers to advise member nations on agricultural matters was recognized after the war. The organizational meeting was held in London in 1946. A year later the first annual Congress met in Holland, followed in 1948 by the second meeting in France and the third this year in Canada.

H. H. Hannam, president of the Canadian Federation of Agriculture, was elected president of the International Federation at the Guelph meeting. He succeeds Sir James Turner, president of the National Farmers Union of Great Britain, who has served as president of the Federation since its inception.

The members voted to hold the Fourth Annual Congress at Stockholm, Sweden, in 1950.

Reading about... Foreign Agriculture

A Handbook of Tropical Agriculture, by G. B. Masefield, 196 pp., London, Oxford University Press, 1949. $4.

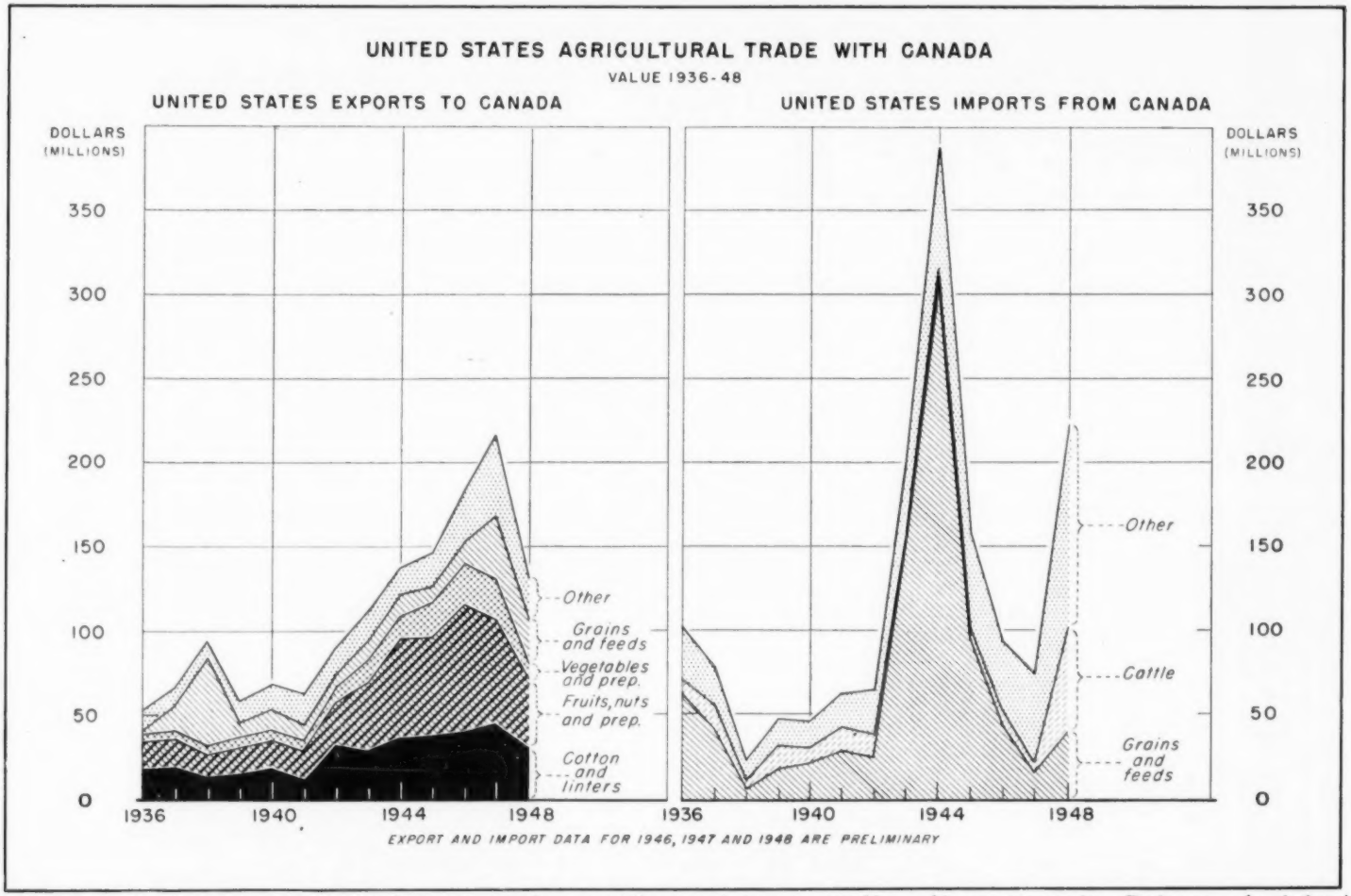
As its title implies, this book is designed as a practical handbook on agriculture in the tropics for farmer, businessman, or administrator. For the first time in recent years, simple facts and figures on crops and livestock are combined under one cover for easy reference. The first of four sections is a general survey of soils, implements, irrigation, and some economic aspects. Tropical crops—cereals, oil plants, fruits, vegetables, fibers, rubber, tobacco, and such—are discussed in the second part, while the third deals with agricultural diseases and pests. The fourth section considers the livestock situation in the equatorial belt, with chapters on cattle types and management, dairying, small stock, minor farm animals, and pasture management.

Formerly British provincial agricultural officer in Uganda, Mr. Masefield is now lecturing on colonial agriculture at Oxford.

Economic Survey of Europe in 1948, a publication of the Department of Economic Affairs, United Nations, 288 pp., illus., Research and Planning Division, Economic Commission for Europe, Geneva, 1949.

Europe's postwar industrial machine shifted into high gear in 1948 and set out to surpass prewar production records. The individual laborer was producing more goods, unemployment was low, and the flow of materials and fuel to industry was increasing by the month. This is the European economic story at the end of 1948, as presented in this report published by the Economic Commission for Europe. The survey, together with many explanatory tables, is outlined in nine chapters dealing with such pertinent topics as Progress in Production, Progress Towards Internal Equilibrium, the General Pattern of Trade, Intra-European Trade and Payments, and Progress in Planning. A summary of economic achievements in 1948 and the outlook for the year ahead are discussed in the final chapter under the title, Problems and Prospects. Production figures for specific goods listed by countries appear in the Appendix.

It is an encouraging picture the international commission has drawn in the second year of the ECA program.



Canada is a consistently large customer for United States farm products, especially cotton, fruits, nuts, vegetables, and in some years grains. During years of agricultural shortages in the United States, Canada also sends large shipments to this country, as in the drought year 1936, and later during the war years when record meat and dairy production depended in part on large imports of feed.

U. S. GOVERNMENT PRINTING OFFICE 1949